

WHAT IS CLAIMED:

1. An apparatus for monitoring one or more aspects relating to a socket of an prosthetic limb having a residual limb contained therein, the apparatus comprising:

- (a) at least one of a pressure sensor and a force sensor;
- (b) a temperature sensor;
- (c) a moisture sensor;
- (d) a vacuum sensor;
- (e) a display of values sensed by at least one of the pressure sensor, force sensor, temperature sensor, moisture sensor, and vacuum sensor; and
- (g) an alarm for indicating when a value sensed by one of the pressure sensor, force sensor, temperature sensor, moisture sensor, and vacuum sensor is beyond a sensor value limit.

2. The apparatus of claim 1, further comprising a computer for setting sensor value limits.

3. The apparatus of claim 2, further comprising a disconnectable connection between the computer and the device.

4. The apparatus of claim 1, further comprising:

- (f) a liner within the socket; and

wherein the apparatus is configured such that pressure between the residual limb and the socket or between the socket and the liner can be sensed.

5. An apparatus for monitoring the environment of the prosthetic socket of an artificial limb having a residual limb contained therein, the apparatus comprising:

- (a) at least one sensor for sensing at least one of pressure, force, temperature, and moisture, wherein the at least one sensor can be configured with value limits; and
 - (b) an alarm when a value sensed by the at least one sensor is beyond a value limit.
- 6. The apparatus of claim 5 further comprising:
 - (c) a display for sensed values.
- 7. The apparatus of claim 5, further comprising a computer for setting sensor value limits.
- 8. The apparatus of claim 7, further comprising a disconnectable connection between the computer and the device.
- 9. The apparatus of claim 5, further comprising:
 - (c) a liner within the socket; andwherein the apparatus is configured such that pressure between the residual limb and the socket or between the socket and the liner can be sensed.
- 10. The apparatus of claim 5, wherein the sensor for sensing pressure can sense a vacuum between the socket and the residual limb.
- 11. The apparatus of claim 5, wherein the sensor for sensing pressure can sense pressure being applied to a portion of the residual limb.
- 12. A method for monitoring one or more aspects relating to a socket of a prosthetic limb and a residual limb contained therein, the method comprising:

- (a) sensing at least one of pressure, force, temperature, and moisture with respect to at least one the socket, the artificial limb, and a space therebetween; and
 - (b) setting sensor value limits; and
 - (c) indicating when a sensed value is beyond at least one of the sensor value limits.
13. The method of claim 12, further comprising:
- (d) displaying sensed values.
14. The method of claim 12, wherein the socket includes a liner and wherein sensing pressure comprises sensing a vacuum between the socket and the residual limb.
15. The method of claim 12, wherein sensing pressure comprises sensing pressure being applied to a portion of the residual limb.
16. The method of claim 12, wherein sensing force comprises sensing force being applied to a portion of the residual limb.
17. The method of claim 12, wherein indicating comprises providing an audible alarm.
18. The method of claim 12, wherein sensing temperature comprises sensing temperature within the socket.
19. The method of claim 12, wherein sensing moisture comprises sensing moisture within the socket.